

Listing of the Claims:

This listing reflects the current status of the claims in the application and replaces all prior versions, and listings:

1. (Previously Presented) A process for producing a reaction bonded silicon carbide body, the process comprising:
combining about 0 wt% to about 35 wt% of a carbon source, about 40 wt% to about 90 wt% silicon carbide, about 0.01 wt% to about 15 wt% starch, and about 10 wt% to about 30 wt% liquid to form a ceramic slurry;
compacting the ceramic slurry into a green body; and
exposing the green body to liquid silicon metal to produce a reaction bonded silicon carbide body.
2. (Original) A process as in claim 1, wherein the carbon source is selected from the group consisting of carbon black and colloidal graphite, and the silicon carbide comprises alpha silicon carbide grit.
3. (Previously Presented) A process as in claim 1, wherein the ceramic slurry includes about 0 wt% to about 20 wt% carbon black, and about 0 wt% to about 15 wt% colloidal graphite.
4. (Previously Presented) A process as in claim 1, wherein the starch is selected from a group consisting of corn starch, potato starch, tapioca starch, and wheat starch.
5. (Previously Presented) A process as in claim 1, wherein the ceramic slurry includes about 0.01 wt% to about 5 wt% potato starch as the starch.
6. (Original) A process as in claim 1, further comprising heating the green body to a temperature of about 1400°C to about 1650°C during siliconization.

7. (Original) A process as in claim 1, wherein siliconization comprises exposing the green body to about 20 wt% to 150 wt% (based on green body weight) liquid silicon metal.

8. (Original) A process as in claim 1, wherein compacting the ceramic slurry comprises forcing the ceramic slurry into a porous mold with a pore size of about 2 microns to about 20 microns and applying pressure of about 70 psig to about 600 psig for about 10 seconds to about 240 seconds.

9. (Original) A process as in claim 1, further comprising agitating the ceramic slurry continuously at low shear for about 4 hours to about 15 hours under vacuum conditions.

10. (Original) A process as in claim 1, wherein combining further comprises mixing the ceramic slurry for about 10 minutes to about 60 minutes using a high shear, high intensity mixer.

11. (Original) A process as in claim 1, further comprising drying the green body in a conveyor drying oven at about 30 °C to about 200 °C for about 5 minutes to about 12 minutes.

12. (Original) A process as in claim 1, wherein the silicon carbide body comprises an armor torso.

13-24. (Canceled)

25. (Previously Presented) A process as in claim 1, wherein the liquid is water.

26. (Previously Presented) A process for producing a reaction bonded silicon carbide body, the process comprising:

forming a green body from a ceramic slurry comprising silicon carbide, about 0.01 wt% to about 15 wt% starch, and about 10 wt% to about 30 wt% water; and exposing the green body to liquid silicon metal to produce a reaction bonded silicon carbide body.

27. (Previously Presented) A process as in claim 26, wherein the green body is formed by compacting the ceramic slurry.

28. (Previously Presented) A process according to claim 27, wherein the compacting is accomplished through pressure cast molding.

29. (Previously Presented) A process according to claim 26, wherein the ceramic slurry comprises a carbon source.

30. (Previously Presented) A process according to claim 26, wherein the ceramic slurry comprises about 0 wt% to about 20 wt% carbon black, and about 0 wt% to about 15 wt% colloidal graphite.

31. (Previously Presented) A process according to claim 26, wherein the ceramic slurry comprises about 40 wt% to about 90 wt% alpha silicon carbide grit as the silicon carbide.

32. (Previously Presented) A process according to claim 26, wherein the ceramic slurry comprises about 0.01 wt% to about 5 wt% potato starch as the starch.